JUNE, 1927

ENTOMOLOGICAL NEWS

Vol. XXXVIII No. 6

JAMES H. B. BLAND,
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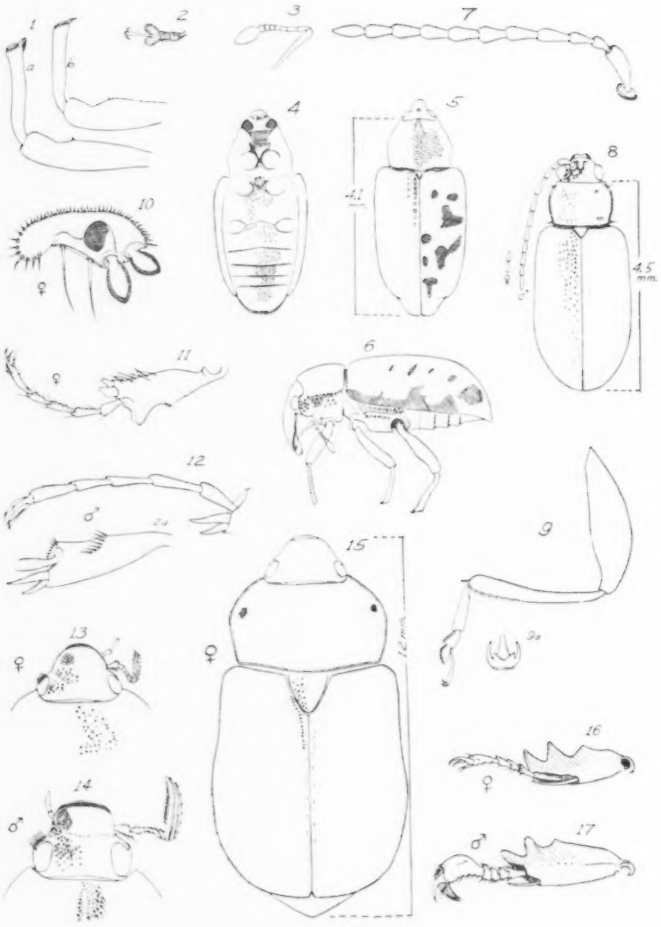

MICRALCINUS KALMBACHI, 1-6: HALTICA LUDOVICIANA, 7-9; OCHROSIDIA NIGRICOLLIS, 10-17.—BUCHANAN.

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By L. L. BUCHANAN, U. S. Biological Survey.

(Plate III.)

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Of the species which came regularly and abundantly, *Lissorhoptrus simplex*, the rice water-weevil, probably heads the

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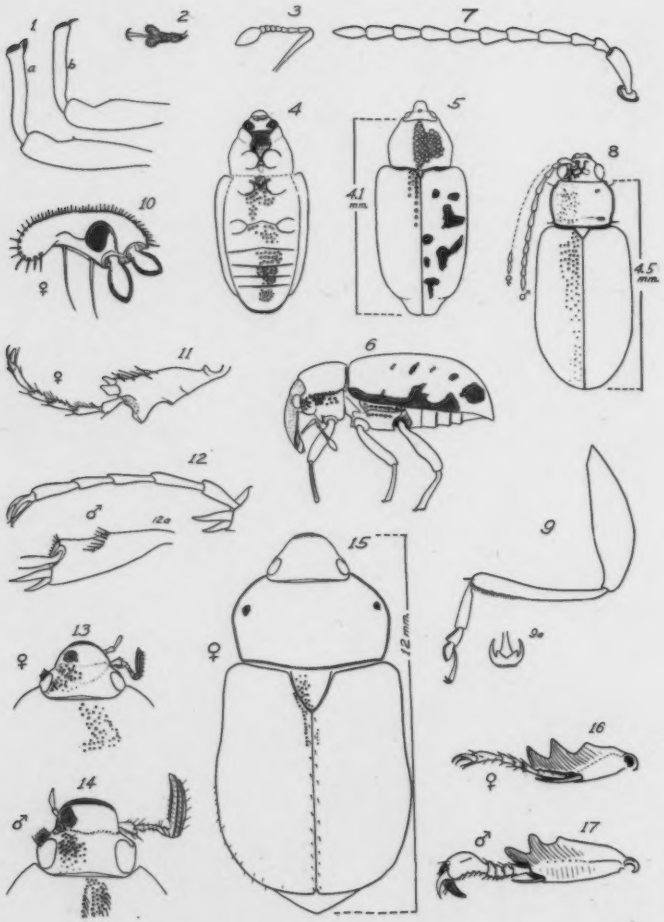

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list; one night's catch of this beetle numbered several thousand individuals. Others which appeared in profusion are:—*Enochrus ochraceus, Berosus* spp., *Celina angustata, Laccophilus* sp., *Bidessus* spp., *Monocrepidius bellus, Eulimnichus ater, Ataenius* and *Aphodius* spp. and *Anthicus* spp. Unusual features of the collection as a whole are the dominance of aquatic, subaquatic and epigeal forms; the scarcity of certain arboreal groups ordinarily met with at light,—such as the Cerambycidae, of which a single species only, *Stenodontes dasystomus* Say, was taken; and the presence of one species of *Sphenophorus* (*ludovicianus* Chttn.), the only record known to the writer of a member of this genus coming to light.

It is not desirable to go into detail here regarding most of the species, but three of them which happen to be little known or of more than usual taxonomic interest, are figured and briefly discussed.

CYCLOCEPHALA ROBUSTA Lec., a Scarabaeid described from Texas in 1866 but apparently not recently recognized, was collected at Gueydan in small numbers about equally divided between the sexes. Horn (71-336) states that *robusta* is the same as *nigricollis* Burmeister (47-54), basing the synonymy on an examination of typical specimens of *nigricollis* sent him from Europe by Leconte. Casey omits the Burmeister and Leconte names in his 1915 review of the Dynastinae, and Leng (18-260) lists both as unrecognized forms of *Spilosota* Csy. The rejection of Horn's synonymy, and the uncertainty regarding the systematic position of *nigricollis* and *robusta* are probably due, in large part, to the pronounced sexual differences which will be described later. The Gueydan species fits *robusta,* according to a comparison Mr. Banks kindly made with the Leconte type, and so far as I can see it agrees also, in all essentials, with Burmeister's description of *nigricollis.* It is significant that Burmiester mentions particularly the dark color and shining surface of his species, two very characteristic features which contrast strongly with the pallid coloration of the other *Cyclocephala,* most of which are now placed with *Ochrosidia* and *Spilosota.* The foregoing considerations leave no reasonable doubt that Horn's synonymy is correct, and that *nigricollis*

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Burm., with its synonym *robusta* Lec., should be reinstated as a valid species in the North American list.

The generic position of *nigricollis,* however, is not clear. It belongs with either *Spilosota* or *Ochrosidia,* differing from the former in the shape of clypeus, dark color and more rounded ligular apex; and from the latter in the more widely separated middle coxae, darker color, and in its special combination of characters. Though there is little choice between the two generic assignments, it is perhaps better to place *nigricollis* provisionally with *Ochrosidia,* which already includes a considerable diversity of structural detail, rather than with the smaller and more sharply defined genus *Spilosota.* Granting the inclusion of *nigricollis* in *Ochrosidia,* the species will form the type of an additional section,—"Section C",— of Casey's Group I (15-142) as follows:—

Body stout; pronotum margined at base, the margin often more or less interrupted at middle; hind tarsi as in Section A; larger claw of anterior male tarsi simple, *i.e.,* uncleft; ♂ hairy, ♀ glabrous, above; color above, at least on elytra, darker than in any other *Ochrosidia,* ranging from reddish-brown to nearly black, pronotum paler. Section C. *nigricollis* Burm. (syn. *robusta* Lec.) Tex.; La.

OCHROSIDIA NIGRICOLLIS Burmeister. Body robust, a little stouter and more convex in the ♀; more shining above, and with slightly coarser punctuation than in *villosa* or *immaculata*; ♂ darker above in general than ♀; head generally black or dark reddish, clypeus a little paler, pronotum in ♀ clear rufous except for the submarginal dark spot, in ♂ generally marked with a large dark cloud each side of middle in addition to the marginal spots. Elytra reddish to nearly black, a little paler than vertex of head.

Dorsum of ♂, including the pygidium but excluding the clypeus, clothed with fine erect hairs which vary from one-half to three-fourths length of scutellum; dorsum of ♀ glabrous except for some short hairs along sides of elytra, and a widely spaced row along sutural interval. Pronotum margined across base, the margin sometimes complete, but generally more or less interrupted, rarely entirely absent, at middle. Ligula oblong, sides subparallel from near base to apical fifth where they converge to the rounded or subtruncate apex. The

apical ligular lobes, so distinct in *immaculata,* etc., are here at most very feebly developed.

Length. 10- 12 mm. Sexual differences affecting the head. eyes, antennae and legs are figured.

HALTICA LUDOVICIANA Fall, another beetle taken by Mr. Kalmbach, is of some interest on account of its close superficial resemblance to certain *Luperodes,* such as *L. meraca.*

The ♂ is smaller than ♀, with the antennae relatively a little longer, and with the apical margin of the last ventral segment very feebly produced, at middle third, in a broadly rounded, transversely impressed lobe. The third and fourth tarsal segments, and the tips of first and second, are dusky. Length, 4.25-5.25 mm.

The Curculionid genus MICRALCINUS is represented in the Gueydan collection by two examples of an undescribed species, and is brought to notice here chiefly to point out its true antennal structure. Leconte (76-235) in describing *Micralcinus,* does not state the number of funicular segments, but assumably knew it to be 7, since he included his genus in the Ithypori with genera having a 7-segmented funicle. Blatchley did not have specimens but, believing the number to be 6, transfers the genus from the Ithypori to the Cryptorhynchini, placing it next *Tyloderma* (16-488 and 494). As a matter of fact, the funicle is distinctly 7-segmented, both in the new species and in M. *cribratus* Lec., of which there is a small series in the National Museum collection. The organization of the body in general is also of a normal Ithyporid type, the shape of the scrobe and, more particularly, the structure of pro- and meso-sternum being diagnostic. In view of these facts, it is clear that *Micralcinus* belongs, as Leconte placed it, in the vicinity of *Conotrachelus.* It differs from any other of our Ithyporid genera in its free and simple claws, protuberant mesosternum, flat elytral intervals, and strongly developed prothoracic ocular lobes. The anterior coxae are narrowly separated,—about as in *Conotrachelus crataegi.*

External sexual differences of *Micralcinus,* taken from *M. cribratus* Lec, are;—♂ with a concavity at base of abdomen, and with fore tibiae distinctly arcuate; ♀ with the last abdominal segment deflexed upward (as in *Apion*) and arcuately flattened across apical fifth; legs shorter and stouter.

The two species are separated as follows;—

1. Femora unarmed; sides of pronotum subparallel in basal two-thirds; Florida .....*cribratus* Leconte
2. Femora with a small tooth; sides of pronotum slightly converging from middle to base; Louisiana. *kalmbachi* n. sp.

Micralcinus kalmbachi, new species.

Length, 4.1 mm. (prothorax and elytra); width, 2 mm.; length of prothorax, 1.09 mm., width, 1.3 mm. Body oblong, ground color reddish, the elytra irregularly marked with black blotches. Vestiture of narrow, white, prostrate, scale-like hairs. Prothorax cribrately punctured.

Beak sub-cylindrical, evenly curved, rugosely punctured, bluntly carinate above, coarsely foveate between the eyes, very feebly set off from head; vestiture fine, sparse, and lying transversely. Head coarsely and closely punctured, the hairs shorter and closer than on beak. Eyes moderately convex.

Punctures of pronotum nearly meeting along middle, vestiture very sparse, but longer, especially at sides, than on beak or elytra. Elytra with humeri rounded, more prominent than in *Tyloderma foveolata,* less so than in *Conotrachelus naso.* Strial punctures large and close, the striae themselves not defined except on declivity; intervals nearly flat, the sutural slightly elevated on declivity. Scales 6 or 8 times longer than broad, prostrate except for an unevenly spaced, inclined row along alternate intervals (beginning with sutural), condensed in a patch at base of 3rd interval, and showing a tendency to form spots or transverse bands. The scales are unevenly distributed, being contiguous or slightly overlapping in a few places, widely separated in others, and extremely minute and sparse on the black areas. The black areas differ in size, shape and position on the two elytra, though the spot on declivity and the broad streak along margin from base to near apex appear to be more constant.

Under surface darker than above, vestiture, which is of hairs rather than scales, less appressed than above. Punctures large, not very dense, smaller and denser on 5th segment, —in no place approaching the size of the pronotal punctures. Tibiae nearly straight, shorter than femora. The femoral tooth, more strictly a denticle, is most prominent on the posterior legs, and hardly visible on the front pair.

2 ♀♀, Gueydan, Louisiana, Aug. 5, 1925, at light. E. R. Kalmbach.

Type, Cat. No. 40101, U. S. National Museum. Paratype in collection Biological Survey.

The mesosternal protuberance differs in the two examples, having its anterior face nearly perpendicular in the type, but slightly produced forward at apex, and consequently sloping backward in profile, in the paratype. In *cribratus* Lec. the sides of the elytra are a little more convergent apically, and the legs (♀) stouter, than in *kalmbachi*.

EXPLANATION OF PLATE III.

Figs. 1, 2, 3, 4, 5, and 6:—*Micralcinus kalmbachi*, n. sp. *1a*, posterior leg; *1b*, anterior leg. 2, anterior tarsus.

Figs. 7, 8, and 9:—Enlarged antenna, dorsal view of body, and posterior leg of *Haltica ludoviciana*.

Figs. 10 to 17 inclusive:—*Ochrosidia nigricollis*. 10, end view of tip of posterior tibia of ♀; 11, posterior tibia and tarsus of ♀; 12, same of ♂; 16, anterior tibia and tarsus of ♀; 17, same of ♂.

Collecting Experiences in Ecuador.

EDITOR ENTOMOLOGICAL NEWS:

Huigra, Ecuador,
Feb. 14th, 1927.

In response to your request for a letter for the NEWS, descriptive of my trip, and collecting experiences, during the three and a half months I have spent in this interesting "country of revolutions," I shall try to give you a brief account of my experiences in Ecuador.*

After awaiting the arrival of Mr. W. J. Coxey, of your city, who joined me in Guayaquil to make the trip with me through Ecuador, we took train to Huigra. I had letters of introduction to J. C. Dobbie, president of the Guayaquil & Quito Railway Company and also to Mr. F. J. White, Mr. Dobbie's assistant, who have their offices here. It happened that we met these gentlemen on the train going up and after presenting my letters, an invitation to tea the following afternoon and a game of tennis was extended. The next day we called at Mr. Dobbie's office and he presented us with letters giving us free transportation over

* See the NEWS for December, 1926, pages 325-328. Mr. Coxey's narrative of his expedition has been published in the *Year Book of the Academy of Natural Sciences of Philadelphia* for 1926, pp. 5-20, with photographic illustrations.—ED.

the entire line and furnished us with a gravity car to take our baggage to Kilometer Post No. 99, where we established our camp alongside of the railway track in a good collecting locality. Our camp was made a flag station and we could flag any and all trains at any time, which made it very easy to reach good collecting localities either up or down the track, and then flag any train available to return to camp. We spent ten days here and secured some good things. We then returned to Huigra and I went on to Quito, while Mr. Coxey remained a few days in Huigra.

Enroute to Quito one enjoys some beautiful scenery, picturesque huts and villages; quaint Indian venders visit the train to sell fruits, etc., but the crowning features of the trip are the superb views one gets (if it is clear) of Cotopaxi, Tunguragua, and the mighty Chimborazo towering something over 20,000 feet above sea level and the second highest mountain in South America. All the above are snow-capped and Tunguragua is an active volcano.

In Quito, one evening just before dinner, I was startled by loud shouting, the firing of rifles and crashing of glass. On looking out I saw thousands of men filling the streets who were being driven by mounted soldiers in front of them. These men, mostly students, remonstrated with clubs and stones, while the soldiers used their swords frequently and now and then a gunshot was heard. It lasted but two hours with one man killed and several injured and was one of those frequent uprisings which spring up here at a moment's notice.

On my return from Quito I stopped at Riobamba to visit friends and outfit with provisions, etc., for my trip into the interior. I had secured two men in Quito to accompany me and they arrived on the 16th of November on which day we left Riobamba with six burros for cargo and a mule which I rode, my two men and two Indian drivers going on foot. The first day was through a sandy desert-like country with much cactus, sand dunes and other desert characteristics. That night we slept in a schoolhouse and were off next day at 5 A. M. We crossed a very rickety bridge over which the burros had to be literally dragged; all cargo was unloaded and carried

across by hand. Our next difficulty was in passing with safety through a canyon near the foot of Tunguragua. The walls of this canyon were 100 to 150 feet high and composed of boulders, large and small, embedded in fine loose volcanic ash. The canyon was from 10 to 50 feet wide at the bottom where our trail led, and the wind whistled down it with great force, carrying a blinding cloud of volcanic ash as it went. The wind formed the canyon as no water ever flows in it and as the wind blew away the loose volcanic ash from around the boulders imbedded in the side walls these boulders came crashing down at intervals so numerous as to make it dangerous to pass, but there was no other way. You may imagine how I felt in a blinding dust storm groping along with boulders dropping in front and behind me, any one of which would have killed me had it struck me. I got through with safety as did also all the burros and all my men but one. One poor Indian driver was struck and had to be carried up out of the canyon, but after an hour's delay he recovered and we went on. One boulder struck a wooden box on the back of a burro and broke the half-inch-thick boards, but no really serious accident occurred, so we arrived in the small village of Baños that night at 7 o'clock very tired and for my part sore and lame, as I was not used to mule riding.

We rested a day in Baños and I collected a few things nearby, visited a beautiful waterfall which drops some 300 feet, and not 50 feet from this a large hot spring gushes forth and at about 100 feet the other side of the falls is some of the finest mineral water I ever drank. After a day's rest we went on to Yunguilia where I stopped ten days to collect, but collecting was not very good, so I took six mules and went on two days further to Mera where I stayed three weeks. Here, one evening at dusk, as I was busy at my table with sorting and papering the day's catch, I heard shouting and saw six men chasing a man who was carrying a large cutlass. On inquiry I learned that the man they were after had almost cut a man's head off. Sure enough, a moment later two women came leading this poor fellow to me for medical aid. This terrible gash gaped some three inches wide open, with the

blood spurting from arteries in all directions. The sight sickened me, I was no doctor and knew very little of what should be done, but there was no time to lose, so we laid the poor fellow down on a dirt floor and with the crude instruments and knowledge I had I set to work. I first bathed the entire wound in iodine and with alcohol, then dipping my butterfly forceps in iodine I caught the arteries one by one, pulled them out and tied each with a thread soaked in iodine. Then with needle and thread, dipped in iodine, I sewed up the great gaping wound and I had no idea the human hide was so tough. I broke four needles on the job and had to use the spool to force the needle through each stitch. After this another bath in iodine and cotton and bandages completed the job. I expected to hear any time he was dead, as the bone supporting the head could be plainly seen, so deep was the cut, but the night passed and he still lived. I called to take his temperature and read his pulse. I gave him a laxative and his brother got four Indians to carry him over the rough trails three-days' journey to Ambato to the clinic. After two weeks this poor fellow sent me a letter, thanking me for what I had done and the doctor added a note stating that the man would live, and he did, for I saw him in Ambato three months later on my return from the Oriente district.

Collecting in and about Mera was only fair though I did get one or two very good things, the prize being the large white *Morpho fruhstorferi*. After three weeks in Mera I sent one of my men two days' journey to Canelos to secure eight Indians to carry my cargo on to Puyo. We left at 9 A. M. but the trails were very bad and the walking was difficult and night overtook us before we reached our destination, so the Indians cut palm leaves and made a rude shelter to keep the rain off. On other palm leaves, which were spread on the ground for a bed, I laid down in soaked clothing without food, light, or even a smoke and spent the night wondering if I would get sick from my experience. Next day we were off at daylight, wading through mud and water in places knee deep and in one place one Indian sank in so deep that he could not extricate himself with the 75-pound pack he was carrying and had

to be pulled out. It rained torrents all the way and we arrived at 9 o'clock that morning in Puyo, pretty well tired out and soaked through and through. A delay of two days here was needed to secure other Indians and two canoes to go on to Indillyama, a one-day trip down the Pindo and Puyo rivers where we arrived safely after one or two exciting moments while shooting the rapids.

At Indillyama we secured eight other Indians for another hike over the mountains to Canelos. The trail followed a knife-like ridge a good share of the way and was better than the Puyo trail, but it rained all day and we had to cross three rivers which were high because of much rain and we were soaked up to our waists in crossing them. The Indians had gone on ahead and one of my men, who said he knew the trail, got lost and we were wandering about, yelling and shouting for help, when we gave up and had just completed a sort of rude shelter of leaves under which to spend the night, when an Indian came along and guided us across the river and to Canelos which was only a short distance farther down and which we reached at 7.30 P. M.

At Canelos another wait of two days was necessary to secure Indians and two canoes to take us three days down the Bobanaza River to my objective, Sarayacu, where I camped for one month and collected. I was unfortunate in striking the rainy season here, which made it difficult to get around, and secured only a small portion of what might be taken here if one could have sunshine. Out of three months I had but three three days of sunshine, with now and then a day when the sun would break through the clouds for from ten to twenty minutes at a time, two or three times a day. Such weather conditions considerably reduced the number of specimens I might have taken, but I shall never regret my trip as I passed through some very beautiful country along the Pastaza River. At Puyo one can take a canoe down the Pindo two hours to reach the Pastaza and then twenty-eight days down this and the Marañon to the mighty Amazon and Iquitos and then by steamer to Para and on to New York.

On my return it required four days to reach Canelos from

Sarayacu, as the canoes had to be poled up against the current. One day our canoe was passing under an overhanging tree and a small green snake dropped into it and almost into my lap. I brushed it out into the river. Another beautiful snake we saw crossing the river. Its colors were red, black and white bands and it was some four feet long. I secured a small monkey about 4 inches high with its tail twice that length from an Indian and paid him 5 barras of cloth for it. Everything has to be paid for with needles, cloth, mirrors, handkerchiefs, beads, earrings, finger rings, necklaces and other trinkets in dealing with the Indians, as they do not know the value of money.

When we arrived at Canelos on my return we secured eight Indians to each of whom I gave ten yards of cloth to take my cargo to Baños, an eight-days' trip. They took my cargo to Puyo, one day from Canelos. On getting up in the morning I found all my Indians had departed, taking the cloth with them. This delayed me three days more to obtain other Indians who took my things to Mera, where I secured mules to return to Baños and then to Pilileo where I got the train to Ambato and on to Riobamba next day. After a couple of days in Riobamba packing up things I had left there and visiting friends, I came on to Huigra where I have stopped another two days to see and thank railway officials and friends who had extended courtesies to me.

Tomorrow I leave for Guayaquil and on the 17th expect to take a Peruvian steamer to Buenaventura, Colombia, where I take train one day to Cali, collect there two weeks, then steamer to Cartago, mules to Ibague, across the Quindo pass and then train for Bogota, auto to Muzo where I expect to see the Government emerald mines and collect. Returning to Bogota, I take river steamer down the Magdalena River to Barranquilla and on to Puerto Columbia in train, where I get my boat to New York and the good old U. S. A. I will be able to give you a more detailed account of my trip when I see you in Philadelphia, as I expect to stop there a day or so on my return.

Very sincerely,

A. F. PORTER.

A New Species of the Genus Fannia R.-D. from North America (Diptera, Anthomyiidae).

By J. R. Malloch, U. S. Biological Survey.

For the past 30 years *Fannia fuscula* Fallen has been accepted as the name of a moderately common species occurring in this country. Recently when making some identifications in the genus I noticed that the hypopygium of this species did not agree exactly with that of European examples of the true *fuscula* and dissection of the two forms shows that they are evidently distinct species. The new one is described below.

Fannia americana sp. n.

♂ Similar to *fuscula* in every particular except in the structure of the male hypopygium. In *fuscula* (Fig. 1) the superior forceps are separated from the main part by a very narrow slit and have no small tooth at the curve on under side, the process along the basal half of the forceps on the upper side appears like a raised rim in dry specimens and there is no evident separation between it and the forceps; in cleared specimens this process is seen to be rather stout, and rounded at apex, and the central bifid dorsal plate terminates in a pair of black approximated points, with the sides irregularly sloping off and also blackened. In *americana* (Fig. 2) the forceps are more curved, sharper at apices, and have a small tooth at curve on under side; they are widely separated from the main portion by a rounded opening, the process along upper margin of latter is slender and curved, and the bifid dorsal plate is deeply split at apex, the apical arms being divergent, sharp at apices, and not blackened. The figures present one side of hypopygium from below.

Length, 5.5-6.5 mm.

Type, Pimmit Run, Virginia, June 2, 1923 (J. M. Aldrich). *Type* in United States National Museum. Paratypes, Virginia, near Plummers Is., June 2, 1916; Glencarlyn, Virginia, June 17, 1917 (W. L. McAtee); same locality, June 11, 1925 (J. R. Malloch); Glen Echo, Maryland, July 23, 1921 (J. R. Malloch).

I have seen *fuscula* Fallen from Bar Harbor, Maine.

Some Coleoptera of the North Saskatchewan Headwaters—Canadian Rocky Mountains.

By J. Monroe Thorington, M. D., Philadelphia, Penna.

During the course of several mountaineering expeditions to the icefield sources of the North Saskatchewan and Athabaska rivers, the writer and his companions have noticed the abundance of insect life to be seen during traverses of many of the higher snowfields. Our attention was arrested by this while at the Freshfield icefield (1922), on the Columbia icefield (1923), and, to a lesser extent, on the Hooker and other icefields adjacent to Athabaska Pass (1924).

The Columbia icefield, the largest in the Rocky Mountains of Canada, contains approximately one hundred and twenty-five square miles, and is situated on the Continental Divide (Alberta-British Columbia) in Latitude 52° 12'. It forms a compact triple-divide, draining to the Columbia, Saskatchewan and Athabaska river systems. During the course of two crossings of this field, we found numerous moths and beetles on the snow, at 10,000 feet and above, carried up there by air-currents. The insects were alive, although torpid from cold, and appear to be a dependable source of food supply for small birds that one sees wheeling and darting about. Due to their small size and generally dark color, the insects absorb heat and melt small pits in the snow surface from which they are unable to extricate themselves.[1]

No systematic attempts were made at collecting during these years; we were not entomologists, but were primarily interested in topography and the self-sufficient ends of mountaineering sport. However, during the course of an expedition to Glacier Lake, in July, 1926, the interest of the North Saskatchewan valleys as a relatively unstudied area induced us to make such scientific observations as our somewhat limited knowledge permitted. Geology, glacial motion, botany, color and motion-picture photography and entomological collecting were among our objectives.

A portion of the data obtained has been published elsewhere.[2]

[1] *The Glittering Mountains of Canada*, J. Monroe Thorington (Lea, 1925), p. 89.

[2] *The Mountains of Glacier Lake*, J. Monroe Thorington; Alpine Journal xxxix, May, 1927. *The Lyell and Freshfield Glaciers, Canadian Rocky Mountains*, J. Monroe Thorington; Smithsonian Miscellaneous Collections, Vol. 78, No. 6, 1927.

The purpose of the present paper is to report the coleoptera obtained, as, owing to lack of facilities and time, no other order of insects was collected.

Leaving Lake Louise, on the Canadian Pacific railroad, on June 30, we proceeded northward by the Bow (South Saskatchewan) valley and encamped on the slopes of Mt. Hector, reaching Bow Lake on the following morning. On July 2 we crossed Bow Pass to the North Saskatchewan, making camp at the upper Wildfowl Lake (4800 feet). Here were obtained *Xestoleptura crassipes* Lec. and *Monochamus monticola* Csy. The ground is made up of gravel and small stones, with a sparse growth of bush and jack-pine.

On July 3 we reached the forks of the Saskatchewan, camping by the river not far below and across from the Glacier Lake stream. The elevation is about 4200 feet, the soil being glacial sand and gravel. Several species of *Bembidion* were obtained here.

Next day we reached the flats at the upper end of Glacier Lake, where we maintained a base camp until July 14. The elevation is 4800 feet. At this camp were collected *Opisthius richardsoni*, Kby., *Notiophilus borealis* Harr, and the rare palaearctic Carabid *Miscodera arctica* Payk. In addition we secured *Cryptohypnus nocturnus* Esch., *Magdalis* sp., *Acmaeops pratensis* Laich., *Neoclytus muricatulus* Kby., *Chrysobothris trinervia Kby.* and *Anthaxia aenogaster* Cast. The Buprestids and Cerambycids were taken on fresh-cut timber, their activity and speed making them difficult to capture.

A high camp, 7000 feet, was made above the north lateral moraine of the Lyell glacier on July 4, serving for climbs on the icefield until July 9. The ground was a carpet of heather, interspersed with boulders and storm-twisted pines. *Nebria hudsonica* Lec., *Xylotrechus montanicus* Csy. and *Lepyrus colon* L. were found.

On the Lyell icefield, at 10,000 feet, only Cerambycids were seen, but they were very common. *Criocephalus productus* Lec. and *Leptura pedalis* Lec., were collected on July 6, during an ascent of Mt. Lyell.

On July 12, from a bivouac in the angle between the Mons and Lyell glaciers, the ascent of Mt. Forbes (11,902 feet) was

made. No coleoptera were encountered, but large aphids were noticed on the snow above 11,500 feet.

On the Freshfield glacier, during the course of measurements on ice motion, on July 15, several specimens of *Pachyta liturata* Kby. were found. That birds do not take them from bare ice is evidenced by the fact that many of these Cerambycids were dead and partially decomposed. On the upper snowfields, however, the specimens were almost invariably alive, and birds frequently in evidence.

Returning to the Saskatchewan valley, on July 16, we camped on Howse river, at 4300 feet, above the Glacier Lake stream. Here the ground was mossy and green, with timber and many flowers. *Platynus* sp., *Thanasimus undulatus* Say., *Judolia sexmaculata* L. and *Syneta carinata* Mannh. were found here.

Ordinary collecting methods were used throughout this expedition, although the technique employed on the icefields is believed to be unique. We were a mountaineering party, four on a rope, with definite objectives which permitted but infrequent halts if they were to be successfully attained. At such times a collector can not expect much sympathy from other members of the party. The writer, therefore, soon became adept in manipulating the climbing rope and a cyanide bottle with the left hand, while the ice-axe in the right served to slice out a small block of snow in which the desired specimen was seen. The snow was lifted from the axe blade and the insect transferred to the killing-bottle, the entire operation completed without retarding the progress of the climbers.

The Coleoptera taken at the higher levels were exclusively Cerambycids. These are strong in flight and, from their distribution on the snowfields, appear to have come chiefly from the Alberta side of the Continental Divide. Their association with moths, aphids, butterflies and wood-borers, with exclusion of other coleoptera, as typical of the insect life on the snowfields, is of interest.

While, with the exception of *Miscodera arctica*, no very unusual specimens were secured, yet the data obtained add to the knowledge of distribution through an interesting area practically

unknown to collectors. In all, one hundred and sixty Coleoptera were brought back in good condition. Mr. Frank R. Mason has kindly identified and classified them as follows:—

CARABIDAE.

Opisthius richardsoni Kby. Glacier Lake, 4800 feet, July 5.
Notiophilus borealis Harr. Glacier Lake, 4800 feet, July 5.
**Miscodera arctica* Payk. Glacier Lake, 4800 feet, July 5.
Nebria hudsonica Lec. Glacier Lake, 7000 feet, July 9.
Bembidion, several species. Saskatchewan Forks, 4200 feet, July 3.
Platynus sp. Saskatchewan River, 4300 feet, July 16.

CLERIDAE.

Thanasimus undulatus Say. Saskatchewan River, 4300 feet, July 16.

ELATERIDAE.

Cryptohypnus nocturnus Esch. Glacier Lake, 4800 feet, July 5.

BUPRESTIDAE.

Chrysobothris trinervia Kby. Glacier Lake, 4800 feet, July 5.
Melanophila fulvoguttata Harris. Glacier Lake, 4800 feet, July 5.
var. *drummondi* Kby. Glacier Lake, 4800 feet, July 5.
Anthaxia aeneogaster Cast. Glacier Lake, 4800 feet, July 5.

CERAMBYCIDAE.

Criocephalus productus Lec. Lyell Icefield, 10,000 feet, July 6.
Pachyta liturata Kby. Freshfield Glacier, 6500 feet, July 15.
**Judolia sexmaculata* L. Saskatchewan River, 4300 feet, July 16.
Xestoleptura crassipes Lec. Wildfowl Lake, 4800 feet, July 2.
Monochamus monticola Csy. Wildfowl Lake, 4800 feet, July 2.
**Acmaeops pratensis* Laich. Glacier Lake, 4800 feet, July 5.
Neoclytus muricatulus Kby. Glacier Lake, 4800 feet, July 5.
Xylotrechus montanicus Csy. Glacier Lake, 7000 feet, July 9.
Leptura pedalis Lec. Lyell Icefield, 10,000 feet, July 6.

CHRYSOMELIDAE.

Syneta carinata Mannh. Saskatchewan River, 4300 feet. July 16.

CURCULIONIDAE.

Lepyrus colon L. Glacier Lake, 7000 feet, July 9.
Magdalis sp. Glacier Lake, 4800 feet, July 5.

(Palaearctic species are marked with an asterisk.)

Undescribed Species of Crane-flies from the Eastern United States and Canada (Dipt.: Tipulidae). Part IV.

By CHARLES P. ALEXANDER, Massachusetts Agricultural College, Amherst, Massachusetts.

In the present installment under this general title, four undescribed species of the genus *Tipula* from the Southeastern United States are discussed. As before, all of these species were collected by my friend, Professor J. Speed Rogers, to whom my sincere thanks are extended for the privilege of examining this important series. The types have been returned to Professor Rogers.

Tipula osceola sp. n.

Belongs to the *tricolor* group; allied to *T. sayi* Alexander and *T. ludoviciana* Alexander; antennae of male relatively long, the flagellar segments very strongly constricted so as to appear binodose.

♂. Length about 14 mm.; wing 12.5 mm.; antenna about 5 mm. ♀. Length about 20 mm.; wing 17-18 mm.

Frontal prolongation of head light gray above, darker laterally, the nasus slender; palpi brownish black. Antennae (♂) relatively elongate, conspicuous, the segments strongly constricted so as to appear binodose; scape pale, the basal segment pruinose; first flagellar segment simple or nearly so, obscure yellow; second flagellar segment feebly bicolorous, the apex and constricted portion being pale, the remainder black; the succeeding two or three segments have the extreme apex pale; the remainder of the organ black. In the female, the flagellar segments are simple or very nearly so but the individual segments are strongly constricted at the incisures. Head light gray with a broken capillary brown median vitta.

Mesonotal praescutum buffy, the lateral margins gray, the disk with three brown stripes that are narrowly margined with darker brown, the median stripe further divided by a capillary dark brown vitta; lateral stripes more nearly entire; scutum buffy, with brown marks on the lobes, the caudal margin and remaining sclerites of the mesonotum clear light gray pruinose; scutellum with a very tenuous capillary brown median line. Pleura gray. Halteres elongate, the stem brownish yellow, the knob dark brown.

Legs with the coxae light gray pruinose; trochanters brownish yellow, more sparsely pruinose; femora yellowish brown, gradually darkening, the distal third or more black; remainder of legs black.

Wings of the general pattern of *T. sayi*, the dark brown costal margin followed by a whitish area of nearly equal width, the remainder of the wing strongly suffused with paler brown. Venation: Distal section of R_2 entire but very pale; vein *2nd A* long, the cell correspondingly narrow.

Abdominal tergites brownish yellow, the lateral margins of the segments sparsely pruinose; basal impressions black; sternites similar; hypopygium pale. Male hypopygium with the lobe of the tergal region very broad, entire. Outer dististyle pale. Abdomen of female more elongated. Ovipositor with the tergal valves long and slender.

Habitat.—Florida. *Holotype:* ♂, Gainesville, Alachua County, November 22, 1925 *(J. S. Rogers);* No. 192. *Allotopotype:* ♀, November 10, 1923; No. 101. *Paratopotypes:* 8 ♂♀, October 27, 1923—November 22, 1925 *(J. S. Rogers).*

Tipula maculipleura sp. n.

Belongs to the *tricolor* group; closely allied to *T. floridensis*, Alexander; thoracic pleura conspicuously marked with brown.

♂. Length about 15mm.; wing about 17 mm.

Generally similar and very closely allied to *T. floridensis*, differing especially in the coloration and details of structure of the male hypopygium.

Antennae bicolorous; wing-apex entirely darkened; whitish fascia at the cord not entirely traversing the wing.

Thorax yellowish, with conspicuous brown markings, including the following areas on the pleura: A large spot on the cephalic half of the anepisternum; ventral half of the sternopleurite and the propleura. The body of the type is discolored and it cannot be stated whether the pleura is heavily pruinose, as is usual in the group. Wings very similar to *floridensis;* cell *C* broader and more yellowish.

Abdominal tergites dark, the lateral margins of the segments broadly pale, the caudal margins more narrowly of this color; eighth tergite with the caudal margin broadly buffy. Male hypopygium with the ninth tergite dark, the caudal margin produced into an elongate median lobe that is a little narrowed shortly before the truncated or subtruncated apex; surface of this lobe with microscopic gray setulae; median area of the basal half of the lobe slightly elevated into a linear ridge,

Habitat.—Tennessee. *Holotype:* Allardt, Fentress County, altitude 1650 feet, June 14, 1924 *(J. S. Rogers);* No. 28.

The only other regional member of the *tricolor* group with the thoracic pleura conspicuously marked with brown is *T. subeluta* Johnson, an otherwise very distinct species.

Tipula synchroa sp. n.

♂. Length about 7.5-8.5 mm; wing 7.8-9.5 mm. ♀. Length 9-11 mm.; wing 9.5-10 mm.

Generally similar to *T. annulicornis* Say, differing chiefly in the fact that the two sexes are similar in color, not dimorphic as in the last-named species. Antennae (♂) elongate, bicolorous, the basal portions of the segments being black, the distal portions yellow.

Mesonotal praescutum almost uniformly light brown, with a capillary darker brown median vitta. Wings a little more tinged with brown than in the males of *annulicornis* but less darkened than in the females of the same species.

Abdominal segments yellowish brown or light brown, the caudal margins of the segments narrowly brownish black. Median lobe of the ninth tergite of the hypopygium somewhat less compressed.

Habitat.—Florida. *Holotype:* ♂, Gainesville, Alachua County, March 4, 1922 *(J. S. Rogers);* No. 18. *Allotopotype:* ♀, March 18, 1922; No. 29. *Paratopotypes:* ♂, September 15, 1923, No. 86; ♀, March 10, 1923, No. 64.

Tipula oxytona sp. n.

Allied to *T. georgiana* Alexander, differing especially in the coloration of the body and wings and the pointed posterior lobes of the inner dististyle of the male hypopygium.

♂. Length about 10-11 mm.; wing 11-12 mm.

Frontal prolongation of the head relatively elongate, shiny brownish yellow; nasus lacking; palpi dark brown, the basal segment paler. Antennae with the scapal segments yellow, the flagellar segments dark brown. Head suffused with brown, darker medially, the orbits more buffy.

Mesonotal praescutum brownish buffy, with three conspicuous brown stripes that are slightly margined laterally with darker brown; an ill-defined capillary brown median vitta; in some specimens, the anterior end of the median stripe is paler and in others all of the praescutal stripes are poorly-defined except for the narrow darker margins and median capillary vitta; scutal lobes buffy, largely concealed by two confluent brown areas; scutellum brownish testaceous, darker medially; postno-

tum brown, sparsely pruinose. Pleura pale whitish gray pruinose, the anepisternum and sternopleurite indistinctly variegated with darker. Halteres pale, the knobs brown.

Legs with the coxae and trochanters pale; femora brownish yellow, the tipe narrowly dark brown; tibiae brown, the tips scarcely darkened; tarsi passing through brown to brownish black.

Wings with a faint brownish tinge, the stigma brown; costal region brownish yellow; wing-base and a seam along *Cu* similarly colored; obliterative area crossing cell *1st* M_2. Venation: Petiole of cell M_1, about two-fifths to one-half the cell.

Abdomen brownish yellow, the caudal and especially the lateral margins of the tergites paler. Male hypopygium large and conspicuous, constructed much as in *georgiana*. Ninth tergite with the lateral lobes strongly incurved, the shiny median lobe obtusely rounded. Posterior lobes of the inner dististyle produced caudad into long conspicuous flattened blades that run out into subacute points, very different in shape from the short, broad, obtuse blades of *georgiana*.

Habitat.—Florida, *Holotype:* Marion County, April 4, 1926 *(J. S. Rogers);* No. 4. *Paratopotype:* ♂; *paratypes:* 3 ♂♂, Gainesville, Alachua County, February 12-14, 1922 *(J. S. Rogers);* Nos. 3, 4.

Los Angeles Butterfly Show.

The Sixth Annual Butterfly Show of the Lorquin Entomological Society of Los Angeles, California, was held in the Los Angeles Museum of History, Science and Art during the month of March. Fifteen thousand specimens were on display, loaned from nineteen private collections. Among other interesting exhibits was a collection of blown butterfly eggs mounted for microscopic study. Interest in the show rivalled that aroused by the Los Angeles wildflower shows, and over 56,000 people attended. Splendid publicity was given by the Los Angeles newspapers.

JOHN S. GARTH, *Secretary, Lorquin Society.*

Fernald Entomological Club.

The old Fernald Entomological Club was reorganized, with Dr. W. E. Hinds as president and Perez Simmons as secretary, on New Year's Eve in the Hotel Normandie, Philadelphia. The speaker of the evening was Dr. H. T. Fernald. There are no dues, and all entomologists who have worked under the Fernalds constitute the membership.

ENTOMOLOGICAL NEWS

PHILADELPHIA, PA., JUNE, 1927.

Does Familiarity Breed Contempt?

In the *Proceedings of the Entomological Society of Washington* for November, 1926, Mr. W. L. McAtee writes:

"Nomina conservanda have been adopted for the chief purpose of preserving familiar names . . . Getting at the root of the thing, what virtue is there in familiarity? Certainly there is no real value in preserving a familar name unless it embodies a definite concept. . . . Taxonomists can develop their own field according to their own best judgment, ignoring nomina conservanda which in consequence will eventually pass into the realm of forgotten things."

The assumption made in some quarters (we will not say by Mr. McAtee) that taxonomists or any other brand of naturalists, can ignore the work of the brands other than their own is extremely short-sighted and disastrous. Taxonomists are not the only ones who must use technical taxonomic terms. The taxonomist who wishes to improve his classification must frequently review the work of anatomists dealing with the same group in which he is interested, to determine whether the latter have found characteristics, hitherto unused in systematic zoology but which may well be employed in his field. If now a generic name whose original application to one, or at most two, species, like *Calepteryx* Leach 1815, has been in use for many years and has been frequently quoted by anatomists, embryologists and other non-taxonomists so that it is familiar to them and to taxonomists as well, has it not a definite concept behind it? *Calepteryx* (emended by Burmeister 1839 to *Calopteryx*) was formed out of *Agrion* Fabricius 1775, and *Calopteryx* and *Agrion* were used side by side and became, not later than 1850, the origins of tribal and soon (1853) subfamily names, Calopteryginae and Agrioninae.

In 1890, Kirby, by emphasizing Latreille's fixation of *virgo* Linnaeus (the species on which *Calepteryx* was based) as the "example" of *Agrion*, reduced *Calopteryx* to synonymy and, by

necessity, was compelled to propose a new name, *Coenagrion*, for the definite concept which *Agrion* had represented since 1815.

A decade or more passed before Kirby's example was followed to any extent, even by the taxonomists. In the last seventeen years, aided by a decision of the International Commission on Zoological Nomenclature, it has found wider acceptance.

Without arguing the question of priority vs. conservation, it must at least be admitted that he who searches zoological literature for all sorts of information on *Agrion* and Agrioninae (or Agrionidae, as the former subfamily has by some been raised to family rank) must, with increasing years, as he finds item after item, constantly inquire—Does this apply to *Agrion* of 1815 to say 1900 or to *Agrion* since 1910? Kirby admitted "the resulting confusion." Has the application of the law of priority brought any clearer concept to the name *Agrion?* Did not the *familiar* usage of 1815-1890 have a decided virtue? Can Mr. McAtee blame a taxonomist who admits a nomen conservandum under circumstances which, in his "own best judgment," appears on a number of grounds to be preferable to a strictly prior name?—P. P. CALVERT.

Personals.

Dr. L. O. Howard, Chief of the Bureau of Entomology, U. S. Dept. of Agriculture, has been elected an honorary member of the New York Entomological Society.

Dr. Charles Joseph Gahan has retired, under the age limit, from the Keepership of the Entomological Department of the British Natural History Museum. Major E. E. Austen, Deputy Keeper, has been appointed to the Keepership.

Additions to the U. S. National Museum.

Dr. William Schaus recently donated to the National Museum a valuable collection of 10,000 specimens of moths, most of them from Bolivia, which were purchased by him from a collector of that country. (*Science,* April 22, 1927.)

The older amateur entomologists of the District of Columbia remember Henry F. Schoenborn very well indeed. He was a business man in Washington who had a large collection of Lepidoptera and was much interested in

entomology in general. His collection was cared for admirably. His technique in mounting and labeling was excellent. While not a founder of the Entomological Society of Washington, he joined at an early date, and was a warm friend and associate of Doctor Schwarz, Theo. Pergande, Otto Lugger, Otto Heidemann, and John B. Smith. He was born in Suhl, Thuringia, Germany, in 1833, and died in Washington in 1896. Very recently his surviving daughter and son, Miss Theresa F. and William E. Schoenborn have donated the collection to the U. S. National Museum. It includes about ten thousand specimens. They represent to a large extent the local fauna, but there are also very many European species.

L. O. HOWARD.

Entomological Literature

COMPILED BY E. T. CRESSON, JR.

Under the above head it is intended to note papers received at the Academy of Natural Sciences, of Philadelphia, pertaining to the Entomology of the Americas (North and South), including Arachnida and Myriopoda. Articles irrelevant to American entomology will not be noted; but contributions to anatomy, physiology and embryology of insects, however, whether relating to American or exotic species will be recorded.

The numbers in **Heavy-Faced Type** refer to the journals, as numbered in the following list, in which the papers are published.

All continued papers, with few exceptions, are recorded only at their first installments.

Papers of systematic nature will be found in the paragraph beginning with (N). Those pertaining to Neotropical species only will be found in paragraphs beginning with (S). Those containing descriptions of new forms are preceded by an *.

For records of Economic Literature, see the Experiment Station Record, Office of Experiment Stations, Washington. Also Review of Applied Entomology, Series A, London. For records of papers on Medical Entomology, see Review of Applied Entomology, Series B.

Papers published in the Entomological News are not listed.

4—Canadian Ent., Guelph. **5**—Psyche, Cambridge, Mass. **7**—Ann., Ent. Soc. America, Columbus, Ohio. **8**—Ent. Monthly Mag., London. **9**—Entomologist, London **10**—Proc., Ent. Soc., Washington. **13**—Jour. of Ent. and Zoology, Claremont, Cal. **14**—Ent. Zeitschrift, Frankfurt a. M. **15**—Insecutor Inscitiae Menstruus, Washington. **17**—Ent. Rundschau, Stuttgart. **18**—Intern. Ent. Zeitschrift, Guben. **20**—Societas Entomologica, Stuttgart. **21**—The Entomologists's Record, London. **24**—Ann. Soc. Ent. France. **25**—Bull. Soc. Ent. France. **45**—Zeit. f. Wissenschfl. Insektenbiol., Berlin. **48**—Wiener Ent. Zeitung. **49**—Ent. Mitteilungen, Berlin. **50**—Proc., U. S. National Museum. **55**—Pan-Pacific Ent., San Francisco. **56**—Konowia, Wien. **59**—Encyclopedie Entomologie, Paris. **70**—Entomologica Americana, Brooklyn. **72**—Revue Russe d'Entomologie. **77**—Comptes R., Soc. Biologie, Paris. **79**—Koleopterolog. Rundschau, Wien. **107**—Bio-

logisches Zentralblatt. **109**—Ann. Hist. Nat. Mus. Nat., Hungarici. **118**—Die Naturwissenschaften, Berlin. **119**—Proc., Nat. Acad. Sci., Washington. **122**—Zeit. f. Morph. u. Oekol. Tiere, Berlin. **133**—Jour. Experimental Zool.

GENERAL.—Aldrich, J. M.—The limitations of taxonomy. (Science, lxv, p. 381-385.) **Bethune-Baker, G. T.**—Dr. Verity and nomenclature. (21, xxxix, p. 49-51.) **Bird, R. D.**—Preliminary ecological survey of the district surrounding the entomological station at Treesbank, Manitoba. (Ecology, viii, p. 207-220, ill.) **Frison, T. H.**—A list of the insect types in the collections of the Illinois State Natural History Survey and the University of Illinois. (State of Illinois Dept. of Regis. and Educ., Bull. xvi, p. 137-309.) **Handlirsch, A.**—Handbuch der zoologie, Bd. 4, Lief. 5. **Hayes, W. P.**—Prairie insects. (Ecology, viii, p. 238-250, ill.) **Hesse, E.**—Entomologische miscellen. II.[Species of several orders treated]. (**45**, xxii, p. 19-30.) **Horn, W.**—Et meminisse et vaticinari liceat. Ueber infernale entomologen. (**49**, xvi, p. 1-6.) **Janson, O.**—Obituary. (**9**, lx, p. 72.) **Lederer, G.**—Neue wege in der tierhaltung und -Züchtung. (**14**, xxxxi, p. 1-4, cont.) **Meissner, O.**—Coenobiose an brennessel. II. (**20**, xlii, p. 13-14.) **Morin, H.**—Seltsame tiergestalten. (Kosmos, xxiv, p. 169-171, ill.) **Rebler, W.**—Weitere lichtfangergebnisse. (**18**, xxi, p. 9-12.) **Stiles, C. W.**—Sixty-one names under consideration for inclusion in the official list of generic names. [Scorpionidea, Araneae, Acarina, Thysanura, Orthoptera, Isoptera, Corrodentia, Anoplura, Hemiptera, Dermaptera, Siphonaptera.] (Science, lxv, p. 471-472.) **Thorpe, W. H.**—Phytophagic or biological races in insects. (Nature, cxix, p. 602). **Van Duzee, E. P.**—Reinforced generic names. (**55**, iii, p. 151.) **Wolcott, G. N.**—An animal census of two pastures and a meadow in northern New York. (**10**, xxix, p. 62-65.)

ANATOMY, PHYSIOLOGY, ETC.—Abbott, C. E.—The effects of monochromatic light on Formica dakotensis specularis. (**7**, xx, p. 117-122, ill.) **Comas, M.**—Sur l'origine des pigments des larves de Chironomus. (**77**, xcvi, p. 866-868.) **Demerec, M.**—Magenta-alpha, a third frequently mutating character in Drosophila virilis. (**119**, xviii, p. 249-253.) **Harrison, J. W. H.**—Hereditary choice of food plants in the lepidoptera and its evolutionary significance. (Nature, cxix, p. 562-563.) **Hersh, A. H.**—Temperature effects in reciprocal crosses of the bar series

of Drosophila. (**133,** xlvii, p. 227-250.) **Hertz, E.**—Ueber intrazelluläre symbiose bei holzfressenden käferlarven. (**122,** vii, p. 279-305, ill.) **Hetschko, A.**—Geschichtliches über die wechselbeziehungen zwischen blumen und insekten. (**48,** xliii, p. 172-178.) **Hilton, W. A.**—The muscular sense of invertebrates. (**13,** xix, p. 75-76.) **Huxley, J. S.**—Further work on heterogonic growth. (**107,** xlvii, p. 151-163, ill.) **Kennedy, C. H.**—Some non-nervous factors that condition the sensitivity of insects to moisture, temperature, light and odors. (**7,** xx, p. 87-106.) **MacKay, D. A.**—Respiration of insects. (Science, lxv, p. 446.) **Payne, N. M.**—Two factors of heat energy involved in insect cold hardness. (Ecology, viii, p. 194-196.) **Pulikovsky, N.**—Die respiratorischen anpassungserscheinungen bei den puppen der simuliiden. (**122,** vii, p. 384-443, ill.) **Rabaud, E.**—L'instinct maternel chez quelques araignées. (**77,** xcvi, p. 779-780.) **Rostand, J.**—Nouvelles expériences sur la greffe céphalique chez les insectes. (**25,** 1927, p. 95-96.) **Roubaud, E.**—Les formes diverses de l'hétérodynamie chez les insectes à plusieurs générations. (**25,** 1927, p. 61-64.) **Steopoe, I.**—La Spermatogenese chez Ranatra linearis. (**77,** xcvi, p. 1030-1031, ill.) **Stern & Bridges.**—The mutants of the extreme left end of the second chromosome of Drosophila melanogaster. (Genetics, xi, p. 503-530.) **Sunder Lal Hora.**—The mechanism of the so-called "posterior sucker" of a simulium larva. (Nature, cxix, p. 599-600.) **Voinov, V.**—Sur l'existence d'un tissu mésenchymateux vacuolaire dans les larves de Chironomus. (**77,** xcvi, p. 1015-1017, ill.) **Waltòn, L. B.**—The polychaete ancestry of the insects. I. The external structure. (Am. Nat., lxi, p. 226-250, ill.) **Werner, E.**—Die ernährung der larve van Potosia cuprea. Ein beitrag zum problem der celluloseverdauung bei insectenlarven. (**122,** vi, p. 150-206, ill. 1926.) **Zavrel, J.**—Influence de la glande thyroide sur l'accroissement des larves des Chironomides. (**77,** xcvi, p. 1087-1089, ill.)

ARACHNIDA AND MYRIOPODA.—Gabritschevsky, E.—Experiments on color changes and regeneration in the crab-spider, Misumena vatia. (**133,** xlvii, p. 251-267, ill.) **Gerhardt, U.**—Weitere untersuchungen zur biologie der spinnen. (**122,** vi. p. 1-77, ill 1926.)

THE SMALLER ORDERS OF INSECTA—Byers, C. F.—An annotated list of the Odonata of Michigan. (Occ. Pap. Mus. Zool. Univ. Mich., No. 183, 16pp.) **Effenberger,**

Dr.—Neureclipsis bimaculatus, eine planktonnetze spinnende köcherfliegenlarve. (Mikrokosmos, xx, p. 152-154, ill.) **Herfs, A.**—Oekologische untersuchungen an Pediculoides ventricosus. (Zoologica, Berlin, xxviii, Hft. 74, 68 pp., ill.) **Seemann, T. M.**—Dragonflies, mayflies and stoneflies of Southern California. (**13,** xix, p. 1-72, ill.) **Stewart, M. A.**—A note regarding Trichopsylla lotoris and Neopsylla striata. (**15,** xiv, p. 167.)

(N) ***Cockerell, T. D. A.**—A new fossil dragonfly from the eocene of Colorado. (**9,** lx, p. 81-82, ill.) **Hood & Williams.**—A synopsis of the thysanopterous family Urothripidae. (**7,** xx, p. 1-8, ill.) **Morton, K. J.**—Aeschna subarctica in Europe. (**8,** lxiii, p. 86-89, ill.) **Needham, J. G.**—The rocky mountain species of the mayfly genus Ephemerella. (**7,** xx, p. 107-117, ill.)

ORTHOPTERA.—Crampton, G. C.—The abdominal structures of the orthopteroid family Grylloblattidae and the relationship of the group. (**55,** iii, p. 115-135, ill.) **Imms, A. D.**—On the affinities of the Grylloblattidae. (**5,** xxxiv, p. 36-39.) **Maskell, F. G.**—The anatomy of Hemideina thoracica. (Trans. & Proc. N. Zeal. Inst., lvii, p. 637-670, ill.) **Pearson, N. E.**—A study of gynandromorphic katydids. (Am. Nat., lxi, p. 283-285.) **Ramme, W.**—Die eiablage von Chrysochraon dispar. (**122,** vii, p. 127-133, ill.)

HEMIPTERA.—Champlain & Kirk.—The seventeen year locust. (Nature Mag., May 1927, p. 288-290.) **McAtee, W. L.**—Cicadidae of the vicinity of Washington, D. C. (**10,** xxix, p. 70-72.) **Patch, E. M.**—Two currant aphids that migrate to willow-herbs. (Maine Agric. Exper. Sta., Bull. 336, p. 1-8, ill.) **Voinov, D.**—Le vacuome dans les cellules genitales males de Notonecta glauca. (**77,** xcvi, p. 1017-1019, ill.)

(N) ***Deay, H. O.**—A new species of Deltocephalus (Cicadellidae.) (**4,** lix, p. 55.) **Downes, W.**—A new species of Drakella (Tingitidae.) (**4,** lix, p. 60.) **Drake & Harris.**—Three n. sps. of Enicocephalidae. (Ohio J. Sci., xxvii, p. 102-103.) **VanDuzee, E. P.**—Notes on western Aradidae. (**55,** iii, p. 139-142.)

LEPIDOPTERA.—Babcock, K. W.—The European corn borer, Pyrausta nubilalis. A discussion of its seasonal history in relation to various climates. (Ecology, viii, p. 177-193.) **Barnes & Benjamin.**—On some names generally

omitted from lists. (**15,** xiv, p. 156-159.) **Cook, W. C.**—Studies in the ecology of Montana cutworms (Phalaenidae.) (Ecology, viii, p. 158-173.) **Dampf, A.**—Zur kenntnis der duftorgane einiger neotropischer arten der Lithosiidengattung Agylla. (**122,** vii, p. 306-319, ill.) **Lindsey, A. W.**—Notes on phylogeny in Erynnis "Thanaos Auct." (Bull. Dennison Univ., xxii, p. 109-115, ill.) **Morse, A. P.**—An interesting butterfly capture. (**5** xxxiv, p. 10.) **Parker & Thompson.**—A contribution to the study of hibernation in the larva of the European corn borer (Pyrausta nubilalis). (**7,** xx, p. 10-22, ill.) **Philpott, A.**—The maxillae in the lepidoptera. (Trans. & Proc. N. Zeal. Inst., lvii, p. 721-746, ill.) **Poos, F. W.**—Biology of the European corn borer "Pyrausta nubilalis" and two closely related sps. in northern Ohio. (Ohio J. Sci., xxvii, p. 47-94, ill.) **Ruhland, P.**—Die verkümmerung des Eierestockes bei schmetterlingen und ihre wahrscheinliche ursache. (**14** xxxxi, p. 9-13, cont.) **Seitz, A.**—Stalachtis. (**17,** xliv, p. 13-14.)

(N) ***Barnes & Benjamin.**—Generic notes. (Phalaenidae). (**15,** xiv, p. 182-183.) ***Barnes & Benjamin.**—Generic notes. (Phalaenidae, Cuculliinae). (**55,** iii, p. 110-113.) ***Braun, A. F.**—New microlepidoptera from Ontario. (**4,** lix, p. 56-59.) **Clark, A. H.**—Notes on the melitaeid butterfly Euphydryas phaeton, with descr. of a n. subsp. and a n. var. (**50,** lxxi, Art. 11, 22 pp., ill.) **Draudt, M.**—Die gross-schmetterlinge der erde. (Faun. Amer., Lief. 190, Vol. 7, p. 309-324.) **Holland, W. J.**—The lepidoptera named by George A. Ehrmann. (Ann. Carnegie Mus., xvii, p. 229-364, ill.) ***Keifer, H. H.**—California microlepidoptera. (**55,** iii, p. 136-138.) **McDunnough, J.**—Notes on certain agrotid genera and species. (**4,** lix, p. 64-66.) ***Wright, W. S.**—A new geometer from San Diego County. (**55,** iii, p. 113-114.)

(S) ***Dyar, H. G.**—New lepidoptera from Mexico. (**15,** xiv, p. 183-187.) ***Niepelt, W.**—Zwei neue südamerikanische Saturniden. (**18,** xxi, p. 1-2, ill.) ***Rosa, M.**—Lepidopteros do norte do Brasil. (Bol. Mus. Nac. R. d. Janeiro, ii, No. 4, p. 23-24.)

DIPTERA.—Feuerborn, H. J.—Die metamorphose von Psychoda alternata. (Zool. Anz., lxx, p. 315-328, ill.) **Hendel, F.**—Beiträge zur ökologie der agromyziden. (**122,** vii, p. 480-488, ill.) **Johnson, C. W.**—Dipterological notes. (**5,** xxxiv, p. 33-35.) **Komp, W. H. W.**—Observations on

Anopheles walkeri and Anopheles atropos. (**15,** xiv, p. 168-176.) **Krueger, F.**—Biologie und morphologie einiger syrphidenlarven. (**122,** vi, p. 82-149, ill. 1926.) **Perfiljew, P. P.**—Zur anatomie der flohlarven. (**122,** vii, p. 102-126, ill.) **Roberts, J. I.**—The anatomy and morphology of Hippobosca equina. (Ann. Trop. Med. & Paras., xxi, p. 11-26, ill.) **Rogers, J. S.**—Notes on the life history, distribution and Ecology of Diotrepha mirabilis. (**7,** xx, p. 23-35, ill.)

(N) ***Alexander, C. P.**—New or little-known nearctic species of Trichoceridae. (**4,** lix, p. 66-73, ill.) ***Alexander, C. P.**—Undescribed species of Tipulidae from Utah. (**55,** iii, p. 143-145.) **Curran, C. H.**—On the identity of some species of Cartosyrphus. (**4,** lix, p. 73-74.) **Czerny, L.**—Ergänzungen und berichtigungen zu meiner monographie der Helomyziden. (**56,** vi, p. 35-49, ill.) **Duda, O.**—Beitrag zur kenntnis der gattung Lonchoptera. (**56,** vi, p. 89-99, ill.) **Dyar, H. G.**—Mosquito notes. (Culicidae). (**15,** xiv, p. 179-182.) ***Hall, D. G.**—A new species of Sarcophaga from Ohio. (**15,** xiv, p. 176-178, ill.) **Hearle, E.**—Notes on the occurrence of Aedes (Ochlerotatus) nearcticus in the Rocky Mountains Park, Alberta. (Culicidae). (**4,** lix, p. 61-63, ill.) **Paramonow, S. J.**—Zur kenntnis der gattung Hemipenthes Lw. (**59,** (B), III, p. 150-190.) ***VanDuzee, M. C.**—North American species of Polymedon. (Dolichopodidae). (**7,** xx, p. 123-126.) ***VanDuzee, M. C.**—Four new dolichopodids in the collection of the California Academy of Sciences. (**55,** iii, p. 146-148.)

(S) ***Alexander, C. P.**—Undescribed species of Tipuline crane-flies from tropical America. (**15,** xiv, p. 159-167.) ***Borgmeier, T.**—Contribuição para o conhecimento dos generos Rhyncophromyia e Acanthophorides. (Phoridae). (Bol. Mus. Nac.. R. d. Janeiro, ii, No. 4, p. 1-12, ill.) ***Dyar & Tovar.**—Notes on biting flies from Venezuela. (Culicidae, Psychodidae). (**15,** xiv, p. 152-155, 190.) ***Enderlein, G.**—Dipterlogische studien. (**56,** vi, p. 50-56, ill.) ***Séguy, E.**—Diptères exotiques peu connus. (**59,** (B), III, p. 192-196, ill.) ***Shannon, R. C.**—A review of the South American two-winged flies of the family Syrphidae. (**50,** lxx, Art. 9, 34 pp., ill.) ***Shannon & Greene.**—A bot-fly parasitic in monkeys. (Zoopath., New York, i, p. 285-290, ill.) ***Szilady, Z.**—Dipterenstudien. I Zur kenntnis der conopiden. II Bemerkungen über einige scatophagiden des ungarischen national-museums. IV. Eine neue syrphide aus mittel-amerika. (**109,** xxiv, p. 586-611, ill.)

COLEOPTERA.—Böving, A. G.—The larva of Nevermannia dorcatomoides with comments on the classification of the Anobiidae according to their larvae (Anobiidae). (**10,** xxix, p. 51-62, ill.) **Cotton, R. T.**—Notes on the biology of the meal worms, Tenebrio molitor and T. obscurus. (**7,** xx, p. 81-86.) **Gimingham, C. T.**—Beetles at light. (**8,** lxiii, p. 90.) **Glasgow, R. D.**—Another intermediary insect host of the giant thorn-headed worm of swine, Phyllophaga vehemens (Scarabaeidae), new to the host list of this parasite. (**7,** xx, p. 86.) **Glasgow, R. D.**—Another insect vector of the giant thorn-headed worm of swine, Xyloryctes satyrus (Scarabaeidae). (**7,** xx, p. 127-128, ill.) **Hatch, M. H.**—The morphology of Gyrinidae. (Pap. Michigan Acad. Sci., vii, p. 311-350, ill.) **Heymons, R.**—Biologische beobachtungen am pillendreherkäfer Scarabaeus. (**107,** xlvii, p. 164-187.) **Heymons, v. Lengerken u. Bayer.**—Studien über die lebenserscheinungen der Silphini. (**122,** vi, p. 287-332, ill. 1926.) **Larson, A. O.**—The host-selection principle as applied to Bruchus quadrimaculatus. (**7,** xx, p. 37-78, ill.) **Scheerpeltz, O.**—Ein staphylinide als blütenschädling. (**79,** xiii, p. 1-9, ill.)

(N) **Arrow, G. J.**—A note on the coleopterous genus Aserica (Melolonthinae). (**10,** xxix, p. 69-70.) ***Blake, D. H.**—A revision of the beetles of the genus Oedionychus occurring in America, north of Mexico. (**50,** lxx, Art. 23, 44 pp., ill.) ***Chittenden, F. H.**—Classification of the nut curculios [formerly Balaninus] of boreal america. (**70,** vii, p. 129-191, ill.) **Knaus, W.**—A Washington record for Cicindela westbournei. (**55,** iii, p. 114.) **Ochs, G.**—Ueber die Gyriniden von Linné und Fabricius. (**79,** xiii, p. 34-42.) **Schenkling, S.**—Coleopterorum catalogus. Pars 88, Elateridae II, 265-636 pp. ***Van Dyke, E. C.**—A new species of Amphizoa. (**55,** iii, p. 97-98.) ***Van Dyke, E.** C.—New species and subspecies of west American Cerambycidae. (**55,** iii, p. 99-109.)

(N) ***Fisher, W. S.**—A new genus and species of Coleoptera from a termite nest in Costa Rica (Anobiidae). (**10,** xxix, p. 49-50, ill.) **Pic, M.**—Contribution a l'étude des coléoptères Malacodermes. (**24,** xcvi, p. 77-83.) ***Pic, M.**—Nouveaux Chauliognathus. (**24,** xcvi, p. 84.) ***Portevin, M. G.**—Deux Silphides nouveaux des collections du deutsches entomologisches institut. (**49,** xvi, p. 52-53.) ***Stollberg, E. U.**—Drei neue amerikanische Hispinen. (**49,** xvi, p. 50-52, ill.) ***Théry, A.**—Buprestides nouveaux des Antilles. (**24,** xcvi, p. 31-36.)

HYMENOPTERA.—Arnoldi, K. W.—Studien über die variabilität der ameisen. (**122,** vii, p. 254-278, ill.) **Cornetz, V.**—Une vieille expérience avec les fourmis. (La Feuil. Nat. Paris, xlvii, p. 177-182.) **Creighton, W. S.**—The slave-raids of Harpagoxenus americanus. (**5,** xxxiv, p. 11-29, ill.) **Custer & Hicks.**—Nesting habits of some anthidiine bees. [Biol. Bull., lii, p. 258-277.] **Frisch, K. v.**—Versuche über den geschmackssinn der bienen. (**118,** xv, p. 321-327.) **Hicks, C. H.**—Aphilanthops quadrinotatus, a wasp which carries her prey on her sting. (**4,** lix, p. 51-55, ill.) **Hutson, R.**—Relation of the honeybee to fruit pollination in New Jersey. (New Jersey Agric. Exper. Sta., Bull. 434, p. 3-28, ill.) **Menozzi, C.**—Zur kenntnis des weibchens von Dorylus nigricans var molesta (Formicidae). [Zool. Anz., lxx, p. 263-266, ill.] **Mercet, R. G.**—Nota sobre Lelapinos. (Chalc.) (**72,** xii, p. 49-63, ill.) **Parker, R. L.**—The collection and utilization of pollen by the honeybee. (Cornell Univ. Agric. Exper. Sta., Mem. 98, p. 3-55, ill.) **Rabaud et Millot.**—Sur les guêpes "Polistes gallicus" infestées par stylops. (**77,** xcvi, p. 944-946.) **Rösch, G. A.**—Beobachtungen an kittharz sammelnden bienen "Apis mellifica." (**107,** lxvii, p. 113-121, ill.) **Schulze, H.**—Ueber die fruchtbarkeit der schlupfwespe "Trichogramma evanescens." (**122,** vi, p. 553-587, 1926.) **Sturtevant, A. H.**—The social parasitism of the ant Harpagoxenus americanus. (**5,** xxxiv, p. 1-9.)

(N) **Fernald, H. T.**—The digger wasps of North America of the genus Podalonia (Psammophila). (**50,** lxxi, Art. 9, 42 pp., ill.) ***Gahan, A. B.**—Miscellaneous descriptions of new parasitic H. with some synonymical notes. (**50,** lxxi, Art. 4, 39 pp., ill.) **Rohwer, S. A.**—Two European sawflies of the genus Emphytina found in the United States. (**10,** xxix, p. 66, 67.) **Rohwer, S. A.**—On the synonymy of a leaf mining sawfly. (**10,** xxix, p. 67-69.) **Walley, G. S.**—Note on the synonymy of Odontomerus mellipes (Ichneumonidae). (**4,** lix, p. 74.)

(S) ***Mitchell, T. B.**—New West Indian Megachile. (**5,** xxxiv, p. 47-57.)

SPECIAL NOTICES.

Revision der termiten afrikas. III. Monographie, Von Y. Sjöstedt. [K. Svenska Vet. Akad. Handl., (3), iii, No.) 419 pp., ill.]. This monograph will probably be useful to some American students of this order.

Butterflies of California: a popular guide to the knowl-

edge of the butterflies of California, embracing all of the 477 species and varieties at present recorded for the state. By John Adams Comstock. Illustrated with 63 full page color plates showing all of the species known to inhabit the state, and the majority of those occurring in the Southwest, together with half-tone and line illustrations depicting the life histories of western butterflies. Published by the Author $15.00.

This work will be found to be a valuable addition to the library of the students of this order, and should be in all western libraries.

THE LEPIDOPTERA NAMED BY GEORGE A. EHRMANN. By W. J. HOLLAND (and in part A. AVINOFF). Annals, Carnegie Museum, Vol. XVII, No. 2, 1927.—This paper of 64 pages and six plates of photographic reproductions of Ehrmann's types is a decidedly valuable contribution to our knowledge of Lepidoptera. It contains a list of Ehrmann's writings, comments, sometimes at considerable length, on his species, and gives in addition new information on some allied forms. A large proportion of the names become synonyms, and now those which are not such can be correctly identified by the student. The fact that these species have previously been generally mis-identified in the literature again proves that most published descriptions, unless accompanied by good figures, are practically worthless. It is obviously impossible for workers to visit all of the museums in which types are deposited, and we therefore owe Dr. Holland another debt for clearing up this particular set of puzzles. Dr. Avinoff, an authority on the *Parnassiidae,* has written that portion which deals with Ehrmann's species of *Parnassius.*—R. C. WILLIAMS, JR.

Doings of Societies.

The American Entomological Society.

A stated meeting was held January 27, 1927, in the hall of the Academy of Natural Sciences of Philadelphia, Mr. R. C. Williams presiding. Eleven members and visitors were present.

The Treasurer's report was read and given to the Finance Committee for auditing.

In an informal report for the Curator, Mr. Cresson mentioned some of the recent improvements in the rooms of the

Entomological Department. Miss Louise Knobel was elected a resident member.

After reading the nominations for officers and committees made at the December, 1926, meeting, it was moved and seconded that the recording secretary cast a ballot electing these nominees. They are as follows: *President,* Roswell C. Williams, Jr.; *Vice-President,* Philip Laurent; *Treasurer,* Ezra T. Cresson, Jr.; *Corresponding Secretary,* James A. G. Rehn; *Recording Secretary,* R. J. Titherington; *Librarian,* E. T. Cresson, Jr.; *Curator,* W. J. Coxey.

Committees: *Finance,* M. Hebard, W. J. Coxey, F. R. Mason; *Publication,* J. A. G. Rehn, P. P. Calvert, M. Hebard; *Library,* F. M. Jones, W. J. Coxey, F. R. Mason.

Mr. Williams read a notice of the death of Annie T. Slosson, well-known entomologist.

Mr. Carl Ilg presented, through Mr. Williams, six specimens of *Autoserica japonica* (Match.)

Mr. Hornig gave an address on "The Mountains of Silesia," illustrated by lantern slides.

R. J. TITHERINGTON, *Recording Secretary.*

OBITUARY.

The death of WILLIAM LOCHHEAD, professor emeritus of entomology and zoology in Macdonald College, McGill University, Montreal, Canada, on March 26, is announced in *Science* for April 15. He was born at Listowel, Ontario, April 3, 1864, and studied at McGill (A.B. 1885) and at Cornell (1886-87, M.S. 1895). He taught successively at Galt Collegiate Institute (1889-1894), London Collegiate Institute (1896-1898) and Ontario Agricultural College (1898-1905), where he was professor of biology, and held the same chair at Macdonald College from 1905 until a few years ago, when he retired on account of ill health. His work was chiefly in economic entomology, especially on scale insects, the Hessian fly, pea-weevil and orchard insects, as well as on fungi of economic importance. In 1919 he published an excellent *Class Book of Economic Entomology, with special reference to the economic insects of the northern United States and Canada,* distinguished for the clear, compact and methodical arrangement of its subject matter; a review will be found in the NEWS for July, 1919, page 209.

FRANK R. MASON, collector of Coleoptera, member of the American Entomological Society, died rather suddenly on May 28, 1927, at his home 5533 Pulaski Avenue, Germantown, Philadelphia.

EXCHANGES

This column is intended only for wants and exchanges, not for advertisements of goods for sale. Notices not exceeding three lines free to subscribers.

These notices are continued as long as our limited space will allow; the new ones are added at the end of the column, and only when necessary those at the top (being longest in) are discontinued.

Wanted—Bembidion (Coleoptera, Carabidae) from South America, Africa, Australia, India. Will buy or exchange for North American Species. Howard Notman, 136 Joralemon St., Brooklyn, N. Y., U. S. A.

Pselaphidae desired from all parts of N. A. for study. Will determine for privilege of study or pay cash. Am monographing family. F. C. Fletcher, Dept. of Entomology, Cornell University, Ithaca, N. Y.

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